

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-10. Canceled.

11. (Currently Amended) ~~The ferroelectric thin film as defined in any of claims 1 to 3, using:~~ A ferroelectric thin film formed of crystals in which directions of polarization axes are inconsistent with an applied electric field direction,

wherein the ferroelectric thin film is a tetragonal Pb(Zr,Ti)O<sub>3</sub> ferroelectric which is (111)-oriented along the applied electric field direction with respect to a ferroelectric thin film plane, and

wherein the tetragonal Pb(Zr,Ti)O<sub>3</sub> ferroelectric comprises silicon, or silicon and germanium.

12. (Currently Amended) ~~The ferroelectric thin film as defined in any of claims 1 to 3, using:~~ A ferroelectric thin film formed of crystals in which directions of polarization axes are inconsistent with an applied electric field direction,

wherein the ferroelectric thin film is a rhombohedral Pb(Zr,Ti)O<sub>3</sub> ferroelectric which is (001)-oriented along the applied electric field direction with respect to a ferroelectric thin film plane, and

wherein the rhombohedral Pb(Zr,Ti)O<sub>3</sub> ferroelectric comprises silicon, or silicon and germanium.

13. (Currently Amended) ~~The ferroelectric thin film as defined in any of claims 1 to 3, using:~~ A ferroelectric thin film formed of crystals in which directions of polarization axes are inconsistent with an applied electric field direction,

wherein the ferroelectric thin film is a bismuth-layer-structured ferroelectric which is (111) or (110)-oriented along the applied electric field direction with respect to a ferroelectric thin film plane, and

wherein the bismuth-layer-structured ferroelectric comprises silicon, or silicon and germanium.

14. (Currently Amended) ~~The ferroelectric thin film as defined in any of claims 1 to 3, using:~~ A ferroelectric thin film formed of crystals in which directions of polarization axes are inconsistent with an applied electric field direction,

wherein the ferroelectric thin film is an  $\text{SrBi}_2\text{Ta}_2\text{O}_9$  ferroelectric which is (115), (111), or (110)-oriented along the applied electric field direction with respect to a ferroelectric thin film plane, and

wherein the  $\text{SrBi}_2\text{Ta}_2\text{O}_9$  ferroelectric comprises silicon, or silicon and germanium.

15. (Currently Amended) ~~The ferroelectric thin film as defined in any of claims 1 to 3, using:~~ A ferroelectric thin film formed of crystals in which directions of polarization axes are inconsistent with an applied electric field direction,

wherein the ferroelectric thin film is a  $\text{Bi}_4\text{T}_3\text{O}_{12}$  ferroelectric which is (117), (111), (107), or (317)-oriented along the applied electric field direction with respect to a ferroelectric thin film plane, and

wherein the  $\text{Bi}_4\text{T}_3\text{O}_{12}$  ferroelectric comprises silicon, or silicon and germanium.

16-29. (Canceled)

30. (New) The ferroelectric thin film as defined in claim 11, formed of crystals in which directions of  $180^\circ$  domains are inconsistent with an applied electric field direction.

31. (New) The ferroelectric thin film as defined in claim 12, formed of crystals in which directions of  $180^\circ$  domains are inconsistent with an applied electric field direction.

32. (New) The ferroelectric thin film as defined in claim 13, formed of crystals in which directions of  $180^\circ$  domains are inconsistent with an applied electric field direction.

33. (New) The ferroelectric thin film as defined in claim 14, formed of crystals in which directions of  $180^\circ$  domains are inconsistent with an applied electric field direction.

34. (New) The ferroelectric thin film as defined in claim 15, formed of crystals in which directions of  $180^\circ$  domains are inconsistent with an applied electric field direction.

35. (New) The ferroelectric thin film as defined in claim 11, formed of crystals in which directions of  $90^\circ$  domains are inconsistent with a direction perpendicular to an applied electric field direction.

36. (New) The ferroelectric thin film as defined in claim 12, formed of crystals in which directions of  $90^\circ$  domains are inconsistent with a direction perpendicular to an applied electric field direction.

37. (New) The ferroelectric thin film as defined in claim 13, formed of crystals in which directions of  $90^\circ$  domains are inconsistent with a direction perpendicular to an applied electric field direction.

38. (New) The ferroelectric thin film as defined in claim 14, formed of crystals in which directions of  $90^\circ$  domains are inconsistent with a direction perpendicular to an applied electric field direction.

39. (New) The ferroelectric thin film as defined in claim 15, formed of crystals in which directions of  $90^\circ$  domains are inconsistent with a direction perpendicular to an applied electric field direction.

40. (New) The ferroelectric thin film as defined in claim 11,

wherein polarization is arranged at a constant angle to the applied electric field direction in a ferroelectric thin film plane have the same polarization in the same applied electric field.

41. (New) The ferroelectric thin film as defined in claim 12,

wherein polarization is arranged at a constant angle to the applied electric field direction in a ferroelectric thin film plane have the same polarization in the same applied electric field.

42. (New) The ferroelectric thin film as defined in claim 13,

wherein polarization is arranged at a constant angle to the applied electric field direction in a ferroelectric thin film plane have the same polarization in the same applied electric field.

43. (New) The ferroelectric thin film as defined in claim 14,

wherein polarization is arranged at a constant angle to the applied electric field direction in a ferroelectric thin film plane have the same polarization in the same applied electric field.

44. (New) The ferroelectric thin film as defined in claim 15,

wherein polarization is arranged at a constant angle to the applied electric field direction in a ferroelectric thin film plane have the same polarization in the same applied electric field.

45. (New) The ferroelectric thin film as defined in claim 11, formed of a polycrystal highly oriented in the applied electric field direction in a ferroelectric thin film plane.

46. (New) The ferroelectric thin film as defined in claim 12, formed of a polycrystal highly oriented in the applied electric field direction in a ferroelectric thin film plane.

47. (New) The ferroelectric thin film as defined in claim 13, formed of a polycrystal highly oriented in the applied electric field direction in a ferroelectric thin film plane.

48. (New) The ferroelectric thin film as defined in claim 14, formed of a polycrystal highly oriented in the applied electric field direction in a ferroelectric thin film plane.

49. (New) The ferroelectric thin film as defined in claim 15, formed of a polycrystal highly oriented in the applied electric field direction in a ferroelectric thin film plane.

50. (New) The ferroelectric thin film as defined in claim 11,  
wherein a polarization axis distribution exhibits no anisotropy with respect to the applied electric field direction in a ferroelectric thin film plane.

51. (New) The ferroelectric thin film as defined in claim 12,  
wherein a polarization axis distribution exhibits no anisotropy with respect to the applied electric field direction in a ferroelectric thin film plane.

52. (New) The ferroelectric thin film as defined in claim 13,  
wherein a polarization axis distribution exhibits no anisotropy with respect to the applied electric field direction in a ferroelectric thin film plane.

53. (New) The ferroelectric thin film as defined in claim 14,  
wherein a polarization axis distribution exhibits no anisotropy with respect to the applied electric field direction in a ferroelectric thin film plane.

54. (New) The ferroelectric thin film as defined in claim 15,  
wherein a polarization axis distribution exhibits no anisotropy with respect to the applied electric field direction in a ferroelectric thin film plane.